Thank you for using Tense ultrasonic cleaner. We hope the products of our company can give your work and life more convenience. Before your use of this product, please read the instruction carefully

ACCESSORY

a) One unit
b) One piece soundproof lid
c) Power supply wire
d) One piece mesh basket(optional)
e) One piece filter mesh(for outflow function)

SUGGESTED APPLICATIONS

Service line, Electron line, Medicament line, Laboratory, Machine line, Horniness alloy line, Chemistry line

DOMESTIC	COMMERCIAL/INDUSTRIAL
Jewellery : Necklaces, Rings , Bracelets ,etc.	Airbrushes/ Spray guns
Watches and Glasses/Sunglasses: Waterproof wristwatches, Watch chains, Glasses, Sunglasses, etc.	Automotive/ Aviation components
Toiletry Items: Electric toothbrush heads, Electric shaver heads, Razor blades, Combs, Toothbrushes, Dentures, etc.	Calligraphic pens/ nibs
CDs, DVDs: Any CD, VCD, DVD, pre-recorded of CD-R/RW	Computer plotter pens/ nibs
Office Equipment: Printer heads, Fountain pen nibs, Wax or Rubber stamps, etc.	Dental & surgical instruments
Metal Items: Metal cutlery(knives/forks etc) Old coins, Metal badges, Valves, Machine nozzles, small metal parts etc	Fuel injectors
	Geological & metallurgical specimens
	Hypodermic needles
	Inkjet printer cartridges
	Jewellery manufacturing
	Laboratory glassware & apparatus
	Lenses & other optical components
	Metal / fibre filters
	Metal / rubber seals
	Microelectronic circuits & components
	Moulding dies
	Nozzles
	Printed circuit board (PCBs)
	Production line cleaning
	Scientific &Industrial instruments
	Spectacle frames & lenses
	Watches & clockwork

PREPARATION

a) Unpacking the packing and check if any part get loose;
b) Keep the cleaner under ventilated and dry condition, place it flatly
c) Make sure the plug connection is correct and firm.(use triplex plug and earth connection is required and safer)
d) It's optional to add certain amount of detergent when needed

Technical parameters

parameter / model / item	TSX-180ST
Ultrasonic frequency	42(KHz)
Ultrasonic power(W)	180
Ultrasonic timing pattern	Digital
Set time	0-20 minutes
Tank size	300*155*150 (L*W*H)mm
Overall size	330*180*310(L*W*H)mm
Transducer amount	3SET
Heating power	300W
Temperature setting	0℃- 99℃ adjustable
Machine weight	5.6kg
Power supply	AC220-240V 50HZ

CLEANING

Use clean water to wash ordinary. If it is dirt, Please add appropriate cleaning, can strengthen super cleaning effect

OPERATION

1.Select your cleaning solution.
2. Allowing for the volume of the parts you will be cleaning and solution, fill the tank with warm tap water to the operating level line (one inch from the top).
3. Add cleaning solution to the tank water.
4. Plug the cleaner into a grounded outlet.
5. Press the POWER switch On.
6. Set the TIMER for the amount of time you wish the items to be cleaned.
7. Place the items into a basket, perforated tray,
8. Slowly lower the basket into the tank. Do not allow items to contact the tank bottom. Do not stir the solution.
9. If need heating To set the tank temperature,, set the tank temperature you wish the items to be cleaned.
10. When items are clean, slowly remove them from the cleaner.
11. Rinse the cleaned items with clean water and dry them, if necessary.
12. Press the POWER switch OFF. allow Cleaner to cool,
13. If the model does not have a drain. To empty, use the indented side of the rim to pour the used solution into a waste disposal unit, rinse the tank thoroughly.

Warning

a) Always unplug and empty the cleaner after using
b) While the machines working normally, ultrasonic and tank synchrony gives a well-proportioned sound,, and no shudder on the surface of the water, yet there is spray made by the tiny bubbles. If

there are discontinuous surges, please add or release a little of washing solution in the tank, stopping the surges is good for cleaning the objects.

c) In order to ensure cleaning objects is cleaned, please run the machine discontinuously as for as possible (not more than 30 minutes), for a long time running causes temperature increment of the case, and speedup the aging of the electronic devices.

d) Flammable cleaning solution is forbidden.

e) Do not start the heater nor ultrasonic while the tank is empty

f) Prevent water or cleaning liquid from spattering into the case or shaker

g) Make sure the washing liquid is not hot, and turn the ultrasonic off and pull out the plug, while changing or emptying the tank

h) Discharge or spill the liquid, the tank must in the condition of normal temperature. and turn off machine ,plug power.

i) After use should be cleaned and remove dirt from the cleaning trough

ATTENTION	Any part is likely to loose during washing process
	Do not put fabric products, leathern products, wooden products into tank
	Do not put cell phone and un-waterproof into tank
	Do not put glass frame which are made of shells, hawksbill or craftwork into tank

★ Precautions:

Do unplug from power source before filling or emptying the tank.

Do keep the control panel and the area around the cleaner clean and dry wipe up solution which spills over the tank brim. Water and high voltage can cause electrical shock.

Do not operate the cleaner without proper grounding.

Do not remove the grounding prong on the line cord plug.

Do not operate the cleaner dry.

★ If the Machine malfunction is not caused by anthropogenic factor, the seller is responsible for repairing and free charge for replacement components, but freight charge need to paid by the buyer.

warranty card

Type		**Date of purchase**	**warranty period**
		Y T D	**One year**
Customer	**Address and number**		
	Name		
Retailer	**Address**		

ULTRASONIC CLEANER

TSX-180ST

USER MANUAL

- Please read this instruction manual before using
- Keep this manual for reference